#3

OIPE

RAW SEQUENCE LISTING DATE: 09/13/2001
PATENT APPLICATION: **US/09/842,930A** TIME: 11:15:11

Input Set : **A:\sequence listing.txt**
Output Set: **N:\CRF3\09132001\I842930A.raw**

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  3 <110> APPLICANT: Weigel, Paul
  5 <120> TITLE OF INVENTION: Identification of Hyaluronan Receptor for Endocytosis
  7 <130> FILE REFERENCE: 5820.603
  9 <140> CURRENT APPLICATION NUMBER: 09/842,930A
C--> 10 <141> CURRENT FILING DATE: 2001-04-22
 12 <150> PRIOR APPLICATION NUMBER: 60/245,320
 13 <151> PRIOR FILING DATE: 2000-11-02
 15 <150> PRIOR APPLICATION NUMBER: 60/199,538
 16 <151> PRIOR FILING DATE: 2000-04-25
 18 <160> NUMBER OF SEQ ID NOS: 56
 20 <170> SOFTWARE: PatentIn version 3.1
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 4706
 24 <212> TYPE: DNA
 25 <213> ORGANISM: Rattus norvegicus
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 32 gtgccaaaca atgaagccat cgaaaactat atcagggaga agaaagccac atctctaaag    180
 34 gaagatattc tacggtacca tgtggtcctg ggggaaaagc tcctgaagaa tgacttgcat    240
 36 aacggcatgc accgagagac catgctgggg ttctcctacc tccttgcctt ctttctccgc    300
 38 aatgaccagc tgtatgtaaa tgaagctcca ataaactaca ccaatgtggc cactgataaa    360
 40 ggagtgatcc atggtctgga gaaagttctg gaaattcaga agaacagatg tgacaataat    420
 42 gacaccatta ttgtgagagg ggagtgtgga aagtgttccc agcaagcccc ctgcccactc    480
 44 gagacaaaac cacttagaga gacgaggaaa tgcatctatt ccatctactt catggggaag    540
 46 agatccgtat tcatcgggtg ccagccacag tgtgtgagaa ccatcattac aagagcctgc    600
 48 tggctggctt ctttggccca caatgccaag cctgccccgg gagaggtcaa aatgtgtgct    660
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 52 ggcttcaatg ggacagcctg tgaaacctgc actgagggga agtatggtat ccactgcgac    780
 54 caagcatgct cttgtgtcca tgggagatgt agccaaggac ccttgggaga cggctcctgt    840
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 60 aaatgtgcgg caggattccg agggaatgga acggtctgca cagccatcaa tgcctgtgag   1020
 62 accagcaatg gaggatgttc tacaaaggcc gactgtaaaa gaaccacccc aggaaaccgg   1080
 64 gtgtgtgtgt gcaaggcagg ctataccggc gacggcatcg tgtgccttga aatcaacccg   1140
 66 tgtttggaga accatggtgg ctgtgacaga aatgcagagt gcacacagac agggcccaac   1200
 68 caggccgtct gtaactgctt gccgaagtac actggagatg gaaaggtctg ctcgcttatc   1260
 70 aatgtctgcc taacgaacaa tggcggctgc agtccatttg ccttctgcaa ctacactgag   1320
 72 caagatcaaa ggatatgtac ctgcaagcca gactacacgg gtgatggaat cgtctgccgg   1380
 74 ggcagcatct acggggagct tcccaagaac ccttcgacgt cccagtactt cttccagttg   1440
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 80 caggttcttc gctatcacgt ggtgggctgc cagcagctgc tgttggacaa cctaaaagtg   1620
 82 accacaagtg ccacgaccct ccaaggagag ccagtttcca tctctgtctc tcaggacact   1680
 84 gtgttcataa acaatgaggc gaaggtcctg tccagtgaca tcatcagcac caatggcgtc   1740
 86 atccacgtta tagacaagtt gctgtctccc aaaaacttgc ttatcacccc caaagatgcc   1800
 88 ttgggcaggg ttctgcaaaa tcttactaca gtggcagcaa accacggata taccaaattc   1860
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90 agcaagttga tacaggactc aggcttgctg tcagtcatca ctgactccat ccacacccca 1920
92 gtcactgtct tctggcctac ggacaaagcc ctggaagcct tgcccccaga gcagcaggac 1980
94 ttcctgttca atcaagacaa caaggacaag ctgaagtctt acctgaagtt ccacgtgatc 2040
96 cgagactcca aggctttagc ttcagacctc cccaggtctg cttcctggaa gaccctgcaa 2100
98 ggctcagagc tgagtgtgag gtgtggaact ggcagtgaca tcggtgagct ctttctaaac 2160
100 gaacaaatgt gcagattcat acaccgggga ctcttgtttg acgtgggtgt ggcctatggc 2220
102 attgactgcc tactcatgaa tcctacccta ggtggccgat gtgacacttt tactaccttc 2280
104 gatattccgg gggagtgcgg aagttgcatt ttcactccca aatgcccact gaagagcaag 2340
106 ccaaagggcg tgaagaagaa gtgtatctac aacccgttac ctttcaggag gaacgtggaa 2400
108 ggctgccaga acctgtgcac cgtggtgatc caaaccccca ggtgctgcca tggttacttc 2460
110 atgccagact gtcaggcctg ccctggagga ccagatacac cgtgtaacaa ccggggcatg 2520
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124 gtcgctaagt gctcccagaa aggcacccaa gtctcttgca gctgcaagaa aggctacaag 2940
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146 caggtcctca tgtccttccc ctcgctcaca aacttcctga cagaggtgct ggctttttcc 3600
148 aagagctcag cccgaggaca ggcatttttg aaacacctga ctgacctgtc catccgtggc 3660
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154 tttctgagga ctatgctggg aagccaactg ctcattacct tcagccagga ccagctccac 3840
156 caagagacca ggtttgtgga tggaagatcc attctgcagt gggacatcat cgccgccaat 3900
158 ggaatcctcc atattatttc tgaacctttg agagctcctc ccacggcagc aacggctgcc 3960
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168 ctggagaaca ggatctggag gacagcgacc ctctgggggc actgcggtcc tgacatgaga 4260
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180 cggggcttca cctcttatgt tctgtattcc agtacccaga agtacctgcc acacatgtgt 4620
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184 ctatgaaagc aaaaaaaaaa aaaaaa 4706
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Input Set : **A:\sequence listing.txt**
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188 <211> LENGTH: 1431
189 <212> TYPE: PRT
190 <213> ORGANISM: Rattus norvegicus
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198 Ile Phe Arg Gly Tyr Ile Ile His Tyr Asn Leu Ala Ser Ala Ile Glu
199 20 25 30
202 Ser Ala Asp Ala Tyr Thr Val Phe Val Pro Asn Asn Glu Ala Ile Glu
203 35 40 45
206 Asn Tyr Ile Arg Glu Lys Lys Ala Thr Ser Leu Lys Glu Asp Ile Leu
207 50 55 60
210 Arg Tyr His Val Val Leu Gly Glu Lys Leu Leu Lys Asn Asp Leu His
211 65 70 75 80
214 Asn Gly Met His Arg Glu Thr Met Leu Gly Phe Ser Tyr Leu Leu Ala
215 85 90 95
218 Phe Phe Leu Arg Asn Asp Gln Leu Tyr Val Asn Glu Ala Pro Ile Asn
219 100 105 110
222 Tyr Thr Asn Val Ala Thr Asp Lys Gly Val Ile His Gly Leu Glu Lys
223 115 120 125
226 Val Leu Glu Ile Gln Lys Asn Arg Cys Asp Asn Asn Asp Thr Ile Ile
227 130 135 140
230 Val Arg Gly Glu Cys Gly Lys Cys Ser Gln Gln Ala Pro Cys Pro Leu
231 145 150 155 160
234 Glu Thr Lys Pro Leu Arg Glu Thr Arg Lys Cys Ile Tyr Ser Ile Tyr
235 165 170 175
238 Phe Met Gly Lys Arg Ser Val Phe Ile Gly Cys Gln Pro Gln Cys Val
239 180 185 190
242 Arg Thr Ile Ile Thr Arg Ala Cys Trp Leu Ala Ser Leu Ala His Asn
243 195 200 205
246 Ala Lys Pro Ala Pro Gly Glu Val Lys Met Cys Ala Leu Gly Thr Ala
247 210 215 220
250 Ser Val Trp Asp Gly Val Asn Gly Thr Gly Thr Cys Gln Cys Gly Leu
251 225 230 235 240
254 Gly Phe Asn Gly Thr Ala Cys Glu Thr Cys Thr Glu Gly Lys Tyr Gly
255 245 250 255
258 Ile His Cys Asp Gln Ala Cys Ser Cys Val His Gly Arg Cys Ser Gln
259 260 265 270
262 Gly Pro Leu Gly Asp Gly Ser Cys Asp Cys Asp Val Gly Trp Arg Gly
263 275 280 285
266 Val Lys Cys Asp Met Glu Ile Thr Thr Asp Asn Cys Asn Gly Thr Cys
267 290 295 300
270 His Thr Ser Ala Asn Cys Leu Leu Asp Pro Asp Gly Lys Ala Ser Cys
271 305 310 315 320
274 Lys Cys Ala Ala Gly Phe Arg Gly Asn Gly Thr Val Cys Thr Ala Ile
275 325 330 335
278 Asn Ala Cys Glu Thr Ser Asn Gly Gly Cys Ser Thr Lys Ala Asp Cys
279 340 345 350
282 Lys Arg Thr Thr Pro Gly Asn Arg Val Cys Val Cys Lys Ala Gly Tyr

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283         355                 360                 365
286 Thr Gly Asp Gly Ile Val Cys Leu Glu Ile Asn Pro Cys Leu Glu Asn
287     370                 375                 380
290 His Gly Gly Cys Asp Arg Asn Ala Glu Cys Thr Gln Thr Gly Pro Asn
291 385                 390                 395                 400
294 Gln Ala Val Cys Asn Cys Leu Pro Lys Tyr Thr Gly Asp Gly Lys Val
295                 405                 410                 415
298 Cys Ser Leu Ile Asn Val Cys Leu Thr Asn Asn Gly Gly Cys Ser Pro
299             420                 425                 430
302 Phe Ala Phe Cys Asn Tyr Thr Glu Gln Asp Gln Arg Ile Cys Thr Cys
303         435                 440                 445
306 Lys Pro Asp Tyr Thr Gly Asp Gly Ile Val Cys Arg Gly Ser Ile Tyr
307     450                 455                 460
310 Gly Glu Leu Pro Lys Asn Pro Ser Thr Ser Gln Tyr Phe Phe Gln Leu
311 465                 470                 475                 480
314 Gln Glu His Ala Val Arg Glu Leu Ala Gly Pro Gly Pro Phe Thr Val
315                 485                 490                 495
318 Phe Ala Pro Leu Ser Ser Ser Phe Asn His Glu Pro Arg Ile Lys Asp
319             500                 505                 510
322 Trp Asp Gln Gln Gly Leu Met Ser Gln Val Leu Arg Tyr His Val Val
323         515                 520                 525
326 Gly Cys Gln Gln Leu Leu Leu Asp Asn Leu Lys Val Thr Thr Ser Ala
327     530                 535                 540
330 Thr Thr Leu Gln Gly Glu Pro Val Ser Ile Ser Val Ser Gln Asp Thr
331 545                 550                 555                 560
334 Val Phe Ile Asn Asn Glu Ala Lys Val Leu Ser Ser Asp Ile Ile Ser
335                 565                 570                 575
338 Thr Asn Gly Val Ile His Val Ile Asp Lys Leu Leu Ser Pro Lys Asn
339             580                 585                 590
342 Leu Leu Ile Thr Pro Lys Asp Ala Leu Gly Arg Val Leu Gln Asn Leu
343         595                 600                 605
346 Thr Thr Val Ala Ala Asn His Gly Tyr Thr Lys Phe Ser Lys Leu Ile
347     610                 615                 620
350 Gln Asp Ser Gly Leu Leu Ser Val Ile Thr Asp Ser Ile His Thr Pro
351 625                 630                 635                 640
354 Val Thr Val Phe Trp Pro Thr Asp Lys Ala Leu Glu Ala Leu Pro Pro
355                 645                 650                 655
358 Glu Gln Gln Asp Phe Leu Phe Asn Gln Asp Asn Lys Asp Lys Leu Lys
359             660                 665                 670
362 Ser Tyr Leu Lys Phe His Val Ile Arg Asp Ser Lys Ala Leu Ala Ser
363         675                 680                 685
366 Asp Leu Pro Arg Ser Ala Ser Trp Lys Thr Leu Gln Gly Ser Glu Leu
367     690                 695                 700
370 Ser Val Arg Cys Gly Thr Gly Ser Asp Ile Gly Glu Leu Phe Leu Asn
371 705                 710                 715                 720
374 Glu Gln Met Cys Arg Phe Ile His Arg Gly Leu Leu Phe Asp Val Gly
375                 725                 730                 735
378 Val Ala Tyr Gly Ile Asp Cys Leu Leu Met Asn Pro Thr Leu Gly Gly
379             740                 745                 750
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Input Set : A:\sequence listing.txt
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382 Arg Cys Asp Thr Phe Thr Thr Phe Asp Ile Pro Gly Glu Cys Gly Ser
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386 Cys Ile Phe Thr Pro Lys Cys Pro Leu Lys Ser Lys Pro Lys Gly Val
387     770                 775                 780
390 Lys Lys Lys Cys Ile Tyr Asn Pro Leu Pro Phe Arg Arg Asn Val Glu
391 785                 790                 795                 800
394 Gly Cys Gln Asn Leu Cys Thr Val Val Ile Gln Thr Pro Arg Cys Cys
395                 805                 810                 815
398 His Gly Tyr Phe Met Pro Asp Cys Gln Ala Cys Pro Gly Gly Pro Asp
399             820                 825                 830
402 Thr Pro Cys Asn Asn Arg Gly Met Cys Arg Asp Leu Tyr Thr Pro Met
403         835                 840                 845
406 Gly Gln Cys Leu Cys His Thr Gly Phe Asn Gly Thr Ala Cys Glu Leu
407     850                 855                 860
410 Cys Trp His Gly Arg Phe Gly Pro Asp Cys Gln Pro Arg Ser Cys Ser
411 865                 870                 875                 880
414 Glu His Gly Gln Cys Asp Glu Gly Ile Thr Gly Ser Gly Glu Cys Leu
415                 885                 890                 895
418 Cys Glu Thr Gly Trp Thr Ala Ala Ser Cys Asp Thr Pro Thr Ala Val
419             900                 905                 910
422 Phe Ala Val Cys Thr Pro Ala Cys Ser Val His Ala Thr Cys Thr Glu
423         915                 920                 925
426 Asn Asn Thr Cys Val Cys Asn Leu Asn Tyr Glu Gly Asp Gly Ile Thr
427     930                 935                 940
430 Cys Thr Val Val Asp Phe Cys Lys Gln Asn Asn Gly Gly Cys Ala Lys
431 945                 950                 955                 960
434 Val Ala Lys Cys Ser Gln Lys Gly Thr Gln Val Ser Cys Ser Cys Lys
435                 965                 970                 975
438 Lys Gly Tyr Lys Gly Asp Gly Tyr Ser Cys Ile Glu Ile Asp Pro Cys
439             980                 985                 990
442 Ala Asp Gly Val Asn Gly Gly Cys  His Glu His Ala Thr  Cys Arg Met
443         995                 1000                1005
446 Thr Gly  Pro Gly Lys His Lys  Cys Glu Cys Lys Ser  His Tyr Val
447     1010                1015                1020
450 Gly Asp  Gly Val Asp Cys Glu  Pro Glu Gln Leu Pro  Leu Asp Arg
451     1025                1030                1035
454 Cys Leu  Gln Asp Asn Gly Gln  Cys His Pro Asp Ala  Ser Cys Ala
455     1040                1045                1050
458 Asp Leu  Tyr Phe Gln Asp Thr  Thr Val Gly Val Phe  His Leu Arg
459     1055                1060                1065
462 Ser Pro  Leu Gly Gln Tyr Lys  Leu Thr Phe Asp Lys  Ala Lys Glu
463     1070                1075                1080
466 Ala Cys  Ala Lys Glu Ala Ala  Thr Ile Ala Thr Tyr  Asn Gln Leu
467     1085                1090                1095
470 Ser Tyr  Ala Gln Lys Ala Lys  Tyr His Leu Cys Ser  Ala Gly Trp
471     1100                1105                1110
474 Leu Glu  Ser Gly Arg Val Ala  Tyr Pro Thr Thr Tyr  Ala Ser Gln
475     1115                1120                1125
478 Lys Cys  Gly Ala Asn Val Val  Gly Ile Val Asp Tyr  Gly Ser Arg
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Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY DATE: 09/13/2001
PATENT APPLICATION: **US/09/842,930A** TIME: 11:15:12

Input Set : **A:\sequence listing.txt**
Output Set: **N:\CRF3\09132001\I842930A.raw**

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:610 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:785 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:824 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:1490 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:1610 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40